

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

What is claimed is:

1. (Currently amended) A rapid vaccinia neutralization assay method comprising:
 - incubating a mixture comprising at least one cell, a labeled vaccinia virus comprising a reporter gene encoding an enzyme, invasin that encodes a detectable label, wherein the labeled invasin is a virus, and a candidate agent antibody under conditions wherein the vaccinia virus labeled invasin can invade the cell; and
 - detecting the activity of the enzyme detectable label within the cell,
 - wherein a decrease in the enzyme activity of detectable label in the cell due to the candidate agent antibody, relative to a control cell having not been contacted with the candidate antibody, indicates that the candidate agent antibody decreases invasion of the cell by the vaccinia virus, and invasin
 - wherein the assay is completed within 24 hours.
- 2-4. (Cancelled)
5. (Currently amended) The method assay of claim 1, wherein the virus is an enveloped vaccinia virus is vSC56, said reporter gene of the virus encoding β-galactosidase under control of a late vaccinia promoter P11.
6. (Cancelled)

7. (Currently amended) The ~~method assay~~ of claim 5, wherein the enveloped virus is vaccinia virus is vSC8, said reporter gene of the virus encoding β-galactosidase under control of a synthetic E/L promoter.

8. – 11. (Cancelled)

12. (Currently amended) The ~~method assay~~ of claim 1, wherein the detectable label is a fluorescent protein reporter gene encodes β-galactosidase, luciferase, peroxidase, alkaline phosphatase, or xanthine oxidase.

13. (Currently amended) The ~~method assay~~ of claim 1, wherein the detectable label is an enzyme reporter gene encodes β-galactosidase.

14. (Currently amended) The ~~method assay~~ of claim 1, wherein the candidate agent antibody is a vaccinia IgG (VIG), a monoclonal antibody, a polyclonal antibody, or an altered antibody.

15. (Currently amended) The ~~method assay~~ of claim 1, wherein the candidate agent antibody inhibits invasion of the cell by associating with the cell, or associates with the labeled invasin vaccinia virus, or by associating both with the cell and vaccinia virus.

16. (Cancelled)

17. (Currently amended) The ~~method assay~~ of claim 1, wherein the cell is a mammalian cell.

18. (Currently amended) The ~~method assay~~ of claim 17, wherein the cell is a human cell.

19-20. (Cancelled)

21. (Currently amended) The ~~method assay~~ of claim 18, wherein the cell is selected from the group consisting of a lymphoid cell, a pulmonary cell, and an intestinal cell.

22 – 129. (Cancelled)

130. (Cancelled)

131. (Currently amended) The ~~method assay~~ of claim 13, wherein the method ~~results correlate with~~ is predictive of protection against viral lethality in a mouse model *in vivo*.

132. (Currently amended) The ~~method assay~~ of claim 1, wherein the assay is a high throughput assay.

133. (Currently amended) The ~~method assay~~ of claim 1, wherein the method further comprises quantitation of invasion of a cell by an invasin using of a standard curve.

134. (Currently amended) The ~~method assay~~ of claim 133, wherein the r^2 of the standard curve is >0.9 .

135. (Currently amended) The ~~method assay~~ of claim 1, wherein the method is performed in a plate comprising 96-wells.

136. (Currently amended) The ~~method assay~~ of claim 1, wherein the method provides results that are comparable to results obtained with ~~the classic~~ a PRNT neutralization assays.

137. (Currently amended) The ~~method assay~~ of claim 1, wherein the step of detecting the enzyme activity comprises measuring a change in the color or fluorescence of a substrate of the enzyme.

138. (Currently amended) The ~~method assay~~ of claim 137, wherein the measuring is conducted using an ELISA reader instrument.

139. (New) The assay of claim 131, wherein the mouse model is a SCID mouse model.